

**What is claimed is:**

1. A method for building a recovery model, the recovery model being used to reduce a zipper of image data, said method comprising:  
producing a plurality of outputted signals according to a plurality of  
5        brightness, wherein the brightness are not all the same;  
measuring a plurality of differences according to the outputted signals  
and a plurality of estimated signals corresponding to the brightness;  
establishing an interference model according to the differences; and  
producing the recovery model according to the interference model.
- 10    2. The method of claim 1, wherein the step of producing the recovery model through a mathematic method according to the interference model.
3. The method of claim 2, wherein the mathematic method is Neural Network or Furry Control or Matrix model or Nearly Decoupled Model.
- 15    4. The method of claim 3, wherein the Neural Network method comprises:  
setting a tolerance value;  
inputting a plurality of input data into an initial model;  
producing an output data from the initial model;  
modifying the initial model according to a difference of the output data  
20    and the input data; and  
outputting the modified model as the recovered model.
5. A method for improving a quality of digital image data through a recovery model, the method comprising:  
receiving a pixel data of the digital image data;  
25    calculating the pixel data by the recovery model according to a  
difference of the pixel data and at least one adjacent pixel data; and  
producing a recovered image data form a plurality of calculated pixel data,  
wherein the quality of the recovered image data is better than that of the

digital image data.

6. The method of claim 5, wherein the zipper of the recovered image data is not as serious as that of the digital image data.

7. The method of claim 5, wherein a step of producing the recovery model comprises:

producing a plurality of outputted signals according to a plurality of brightness, wherein the brightness are not all the same;

measuring a plurality of differences according to the outputted signals and a plurality of estimated signals corresponding to the brightness;

establishing an interference model according to the differences; and

producing the recovery model according to the interference model.

8. The method of claim 7, wherein the step of producing the recovery model through a mathematic method according to the interference model.

9. The method of claim 8, wherein the mathematic method is Neural Network or Furry Control or Matrix model or Nearly Decoupled Model.

10. The method of claim 9, wherein the Neural Network comprising:

setting a tolerance value;

inputting a plurality of input data into an initial model;

producing an output data from the initial model;

modifying the initial model according to a difference of the output data and the input data; and

outputting the modified model as the recovered model.

11. An apparatus for reducing a zipper of image data, comprising:

a recovery module for storing a plurality of recovery parameters, the recovery parameters are corresponding to the zipper; and

a processing logic, coupled to the recovery module, for receiving a digital image data, and calculating the digital image data with the recovery parameters to produce a recovered image data,

wherein the zipper of the recovered image data is not as serious as that

of the digital image data.

12. The apparatus of claim 11, wherein the step of producing the recovery model comprises:

5       producing a plurality of outputted signals according to a plurality of brightness, wherein the brightness are not all the same;

      measuring a plurality of differences according to the outputted signals and a plurality of estimated signals corresponding to the brightness;

      establishing an interference model according to the differences; and

      producing the recovery model according to the interference model.

10   13. The method of claim 12, wherein the step of producing the recovery model through a mathematic method according to the interference model.

14. The apparatus of claim 13, wherein the mathematic method is Neural Network or Furry Control or Matrix model or Nearly Decoupled Model.

15   15. The apparatus of claim 11, wherein the processing logic is configured to perform the following functions:

      receive a pixel data of an image data;

      calculate the pixel data by the recovered model according to a difference of the pixel data and at least one adjacent pixel data; and

20       produce the recovered image data from the calculated pixel data.

16. The apparatus of claim 15, wherein the processing logic is a hardware or software or firmware.